

What is claimed is:

1. A table assembly for a bag filling apparatus, comprising:
  - (a) a bag support table having an upper surface for at least partially supporting a bag to be filled;
  - (b) at least one vibrating motor for vibrating the bag support table, the at least one vibrating motor being connected to the bag support table and being located below the upper surface of the table;
  - (c) a lifting device for raising and lowering the bag support table along an axis, the lifting device being located below said bag support table; and
  - (d) at least one resilient connector through which the lifting device is connected to the bag support table, the at least one resilient connector damping vibrations produced by the at least one vibrating motor and transmitted from the bag support table to the lifting device.
2. The table assembly according to claim 1, wherein the lifting device is centrally located below the bag support table.
3. The table assembly according to claim 1, further comprising a table mounting plate having an upper surface and a lower surface, the bag support table being mounted on the upper surface through the at least one resilient connector and the lifting device being attached to the lower surface.
4. The table assembly according to claim 1, wherein the at least one resilient connector is selected from spring supports and elastomeric supports.

5. The table assembly according to claim 4, wherein the at least one vibration damping means comprises a plurality of spring supports.
6. The table assembly according to claim 5, wherein each of the spring supports comprises an axially extending spring having an upper end connected to the bag support table.
7. The table assembly according to claim 5, further comprising a table mounting plate having an upper surface and a lower surface, wherein each of the spring supports has a lower end connected to the upper surface of the table mounting plate, and wherein the lifting device is attached to the lower surface of the mounting plate.
8. The table assembly according to claim 4, wherein the table mounting plate is rectangular and the vibration damping means comprises a plurality of spring supports, with one said spring support positioned at each corner of the mounting plate.
9. The table assembly according to claim 8, wherein the upper surface of the bag support table is rectangular in a plane perpendicular to said axis and has four outwardly and downwardly sloping side walls extending from the upper surface to a lower edge,  
wherein the bag support table has four corners at which the side walls converge with one another and with the lower edge, and  
wherein each of the spring supports extends between one of the corners of the mounting plate and one of the corners of the bag support table.
10. The table assembly according to claim 9, comprising two of said vibrating motors which are at least partially enclosed in a hollow space defined by the

upper surface and the sloping side walls of the bag support table.

11. The table assembly according to claim 1, wherein the lifting device comprises a convoluted air bellows.
12. The table assembly according to claim 11, wherein the convoluted air bellows has a top plate, a bottom plate and an expandable central portion between the top and bottom plates, the top plate being secured to the lower surface of the table mounting plate.
13. The table assembly according to claim 12, wherein the bellows has a central axis which is coincident with a central axis of the table mounting plate.
14. The table assembly according to claim 13, wherein the bellows is a triple convoluted air bellows.
15. The table assembly according to claim 1, further comprising a base plate having an upper surface on which the lifting device is mounted.
16. The table assembly according to claim 1, further comprising a lower stop member for preventing downward movement of the bag support table beyond a lower height limit.
17. The table assembly according to claim 16, further comprising a base plate having an upper surface on which the lifting device is mounted, said lower stop member being located above the base plate and having a height which is substantially the same as that of the lifting device in a collapsed state.
18. The table assembly according to claim 17, wherein the lower stop member

abuts both the base plate and a mounting plate on which the bag support table is supported when the bag support table is at the lower height limit.

19. The table assembly according to claim 1, further comprising at least one upper stop member for preventing upward movement of the bag support table beyond an upper height limit.

20. The table assembly of claim 19, further comprising:

a table mounting plate having an upper surface and a lower surface, the bag support table being mounted on the upper surface of the mounting plate; and

at least one bracket attached to the lower surface of the mounting plate, each said bracket having a lower portion spaced from the lower surface of the mounting plate, the lower portion having an aperture sized to closely receive the upper stop member;

wherein each said upper stop member comprises an elongate member having a lower end attached to the upper surface of the base plate, the elongate member extending through the aperture in the bracket and having an enlarged upper end having an area greater than an area of the aperture, such that when the bag support table is at the upper height limit the enlarged upper end abuts the lower portion of the bracket and is located between the lower portion of the bracket and the lower surface of the mounting plate.

21. The table assembly of claim 20, comprising two of said upper stop members attached to opposite sides of said base plate.

22. The table assembly of claim 1, further comprising at least one guide member

for guiding vertical movement of the bag support table.

23. The table assembly of claim 22, further comprising a base plate having an upper surface on which the lifting device is mounted and a mounting plate on which the bag support table is mounted, wherein each said guide member comprises an elongate member protruding vertically from the base plate and a support sleeve attached to the mounting plate in which the elongate member is slidably received.